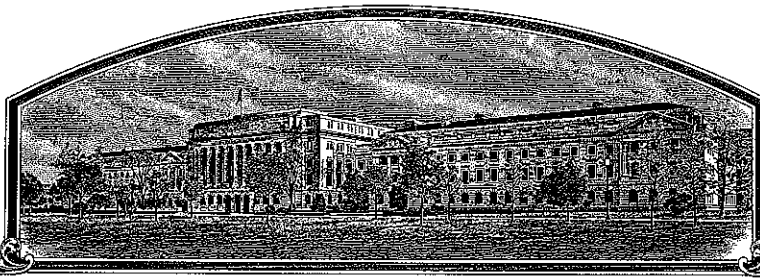


No.

200500179



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

D&H Technology Holding Company, LLC

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE USE, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

COTTON

'DP 6222 RR Acala'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this fourteenth day of February, in the year two thousand and six.

Attest:



[Signature]

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

[Signature]

Secretary of Agriculture

REPRODUCE LOCALLY. Include form number and date on all reproductions.

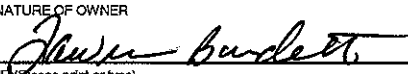
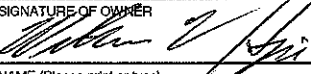
FORM APPROVED - OMB NO. 0581-0065

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY DIVISION - PLANT VARIETY PROTECTION OFFICE

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2428).

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions and information collection burden statement on reverse)

1. NAME OF OWNER <p style="text-align: center;">D&PL Technology Holding Company, LLC.</p>		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME <p style="text-align: center;">03L045R, DPX 03L401</p>		3. VARIETY NAME <p style="text-align: center;">DP 6222 RR Acala</p>	
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) <p>PO Box 157 100 Main Street Scott, Mississippi 38772 USA</p>		5. TELEPHONE (include area code) <p style="text-align: center;">(662) 742-4141</p>		PVPO NUMBER <p style="font-size: 1.5em; text-align: center;">200500179</p>	
6. FAX (include area code) <p style="text-align: center;">(662) 742-3182</p>		7. DATE OF INCORPORATION <p style="text-align: center;">February 29, 1996</p>		FILING DATE <p style="font-size: 1.2em; text-align: center;">MARCH 14, 2006</p>	
7. IF THE OWNER IS NOT A "PERSON" GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) <p style="text-align: center;">Limited Liability Company</p>		8. IF INCORPORATED, GIVE STATE OF INCORPORATION <p style="text-align: center;">Delaware</p>		9. DATE OF INCORPORATION <p style="text-align: center;">February 29, 1996</p>	
10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers) <p>Delta and Pine Land Company Kelly Casavechia P.O. Box 157 Scott, MS 38772</p>					FILING AND EXAMINATION FEE: <p>\$ 3,652.00</p> <p>DATE 3/14/05</p> <p>CERTIFICATION FEE: \$ 768.00 DATE 1/9/06</p>
11. TELEPHONE (include area code) <p style="text-align: center;">(662) 742-4141</p>		12. FAX (include area code) <p style="text-align: center;">(662) 742-3182</p>		13. E-MAIL <p style="text-align: center;">kelly.h.casavechia@deltaandpine.com</p>	
14. CROP KIND (Common Name) <p style="text-align: center;">Cotton</p>		15. GENUS AND SPECIES NAME OF CROP <p style="text-align: center;">Gossypium hirsutum</p>			
16. FAMILY NAME (Botanical) <p style="text-align: center;">Malvaceae</p>		17. IS THE VARIETY A FIRST GENERATION HYBRID? <p style="text-align: center;"><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</p>			
18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse). a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of the Variety d. <input checked="" type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional) e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Owner's Ownership f. <input checked="" type="checkbox"/> Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository) g. <input type="checkbox"/> Filing and Examination Fee (\$2,450), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office)					19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act) <p style="text-align: center;"><input type="checkbox"/> YES (If "yes", answer items 20 and 21 below) <input checked="" type="checkbox"/> NO (If "no", go to item 22)</p>
20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <p style="text-align: center;"><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</p>					21. IF "YES" TO ITEM 20, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED? <p style="text-align: center;"><input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED</p>
22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES? <p style="text-align: center;"><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</p> <p>IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)</p>					23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)? <p style="text-align: center;"><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</p> <p>IF YES, GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.)</p>
24. The owners declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate. <p>The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.</p> <p>Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.</p>					
SIGNATURE OF OWNER  NAME (Please print or type) <p style="text-align: center;">Lawrence Burdett</p>			SIGNATURE OF OWNER  NAME (Please print or type) <p style="text-align: center;">William V. Hugie</p>		
CAPACITY OR TITLE <p style="text-align: center;">Cotton Breeder</p>		DATE <p style="text-align: center;">Mar 7, 2005</p>		CAPACITY OR TITLE <p style="text-align: center;">Vice President/Director of Research</p>	
DATE <p style="text-align: center;">Mar 9, 2005</p>					

Instructions

200500179

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to reproduce the variety, or for tuber reproduced varieties verification that a viable (*in the sense that it will reproduce an entire plant*) tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for \$2,705 (\$320 filing fee and \$2,385 examination fee), payable to "Treasurer of the United States" (*See Section 97.6 of the Regulations and Rules of Practice*). Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfilled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 500, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. **Retain one copy for your files.** All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of \$320 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office
Telephone: (301) 504-5518
FAX: (301) 504-5291
Homepage: <http://www.ams.usda.gov/science/pvpo/pvp.htm>

ITEM

- 18a. Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method
(2) the details of subsequent stages of selection and multiplication;
(3) evidence of uniformity and stability; and
(4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 18b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
- (1) Identify these varieties and state all differences objectively;
(2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
(3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 18c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 18d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 18e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
19. If "Yes" is specified (*seed of this variety be sold by variety name only, as a class of certified seed*), the applicant MAY NOT reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (*See Regulations and Rules of Practice, Section 97.103*).
22. *See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.*
23. *See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.*

21. CONTINUED FROM FRONT (Please provide a statement as to the limitation and sequence of generations that may be certified.)

22. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)

August 8, 2001 - Sold in Australia (Invoice # 00000957; 28 bags weighing 25 kgs each).
DP 555 BG/RR is the protected variety nomenclature in Australia. The marketing synonym is NuPEARL RR.

23. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

ROUNDUP READY[®] cotton:

These seeds are covered under U.S. Patents 5,633,435; 5,352,605; 5,530,196; 5,188,642; 4,940,835; 5,717,084; 5,728,925; and 5,804,425.

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. There is no charge for filing a change of address. The fee for filing a change of ownership or assignment or any modification of owner's name is specified in Section 97.175 of the regulations. (*See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.*)

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority. For example, for agricultural and vegetable crops, contact: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center-East, Beltsville, MD 20705.
Telephone: (301) 504-8089. <http://www.ams.usda.gov/lsg/seed/lsg-sd.htm>

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this collection of information is (0581-0055). The time required to complete this information collection is estimated to average 1.4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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S&T-470 (04-01) designed by the Plant Variety Protection Office with WordPerfect 6.0a. Replaces STD-470 (02-99) which is obsolete.

200500179

EXHIBIT A

DELTA AND PINE LAND COMPANY'S APPLICATION FOR DP 6222 RR Acala

ORIGIN AND BREEDING HISTORY

1. GENEALOGY

DP 6222 RR Acala is a Roundup Ready® (RR) selection of DP 6207 Acala developed using a backcross breeding program. The transgenic RR gene was introduced by crossing DP 6207 Acala to an RR donor. This was followed by three generations of backcrossing to the recurrent parent, DP 6207 Acala. This transgenic development program was conducted in a greenhouse environment and plants were selected for the presence of the RR herbicide gene at all stages in the development process.

LINE 1445 found in DP 6222 RR Acala was developed using recombinant DNA techniques to introduce a resistant version of the gene EPSPS which encodes the enzyme: 5-enolpyruvylshikimate-3-phosphate synthase (EPSPS). This modified EPSPS was originally isolated from the common soil borne microorganism *Agrobacterium sp.* Strain CP4 and confers to LINE 1445 resistance or tolerance to the herbicide glyphosate [formulation of glyphosate, N (phosphonomethyl) glycine] commercialized under the trade name Roundup®. The Monsanto Company developed the LINE 1445 insertion event.

2. SELECTIONS AND MULTIPLICATION

1999 – 2001

The initial cross and three subsequent backcrosses to DP 6207 through the BC₃F₁ generation were made at the Delta and Pine Land Company greenhouse facility at Scott, MS.

2001/02

The BC₃F₂ seed was planted in Costa Rica. The population was sprayed with Roundup® herbicide to select for the presence of the RR gene. The individual plants in the population were self-pollinated to prevent out-crossing and to maintain purity. Self-pollinated bolls were harvested by plant. Seed from each plant was tested individually using PCR techniques; only plants homozygous for the RR gene were maintained.

2002

The BC₃F₂ plant selections made in Costa Rica were planted, plant to row in Scott, MS. Individual lines in the field were tested using PCR techniques to confirm they were homozygous for the RR gene, all heterozygous lines were destroyed before flowering. The individual lines were planted to row in the San Joaquin Valley of California (SJV). Selection pressure was exerted on the individual lines for superior fiber traits, large bolls and upright plant structure. Selected lines were increased from the Scott, MS planting.

200500179

2002/2003

DP 6222 RR Acala was planted in Costa Rica for increase by line. Each line was sprayed with Roundup® herbicide to confirm the RR gene was true breeding and homozygous. No off-types were observed in any line.

2003

The increase from Costa Rica was returned to Scott, MS where PCR techniques were used to confirm all lines were homozygous for the RR gene. Three lines with similar plant structure and superior fiber quality were used to create DP 6222 RR Acala. DP 6222 RR Acala was entered into the first year of the San Joaquin Valley Acala Board Tests. DP 6222 RR Acala was increased in the SJV where it was observed for plant uniformity within the Variety and tested for fiber quality. The increased seed was tested using PCR techniques to confirm DP 6222 RR Acala was true breeding for the RR gene. No off-types were observed in the increase.

2004

DP 6222 RR Acala was entered into the second year of the San Joaquin Valley Acala Board Tests, included in five replicated tests in the SJV and Arizona (to provide data on yield and fiber, Plant Variety Protection and prove the efficacy of the homozygous RR gene), and planted in several strip plots in the SJV. DP 6222 RR Acala was increased in the SJV. No off-types were observed in the increase, replicated test or strip plots.

The variety has been maintained in its current form for the last 2 years, 2003 and 2004. DP 6222 RR Acala is propagated by seed. No off-types have been observed in this variety during the final seed increase generations.

STATEMENT ON UNIFORMITY AND STABILITY

DP 6222 RR Acala has been observed every generation since 2003 and has shown to be uniform and stable for 2 generations over 2 years. Less than 2% of the plants do not contain the LINE 1445 insertion event.

4

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EXHIBIT B

**DELTA AND PINE LAND COMPANY'S APPLICATION FOR
DP 6222 RR Acala**

STATEMENT OF DISTINCTNESS

DP 6222 RR Acala is a mid-full maturity Acala picker-type upland variety.

DP 6222 RR Acala is different from many other picker-type varieties in that it has the gene insertion Line 1445 of a construct developed by the MONSANTO COMPANY, which causes these plants to be tolerant to the herbicide Roundup® (glyphosate).

Acala Sierra RR® was used as the most similar variety because it has many agronomic and adaptive characteristics in common with DP 6222 RR Acala. DP 6222 RR Acala and Acala Sierra RR® have similar plant growth habits and are about the same plant height and maturity.

Novelty of DP 6222 RR Acala is claimed on the following characteristics, for which there are significant differences from the comparison variety, at the 5% level of probability or less.

Trait	DP 6222 RR Acala	Acala Sierra RR®	Reference Table
Lint turnout	.403	.417	Table C1
No. Of Nodes to First Fruiting Branch	5.8	6.7	Table C2
Seed Index	13.3	12.1	Table C2
Lint Index	9.0	8.6	Table C2

Supporting Tables:

<u>Table</u>	<u>Information</u>	<u>Years</u>
C1.	Head to Head Fiber Comparisons	2004
C2.	Head to Head Plant Measurement Comparisons	2004

REPRODUCE LOCALLY. Include form number and date on all reproductions.

Form Approved - OMB No. 0581-005

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Agriculture, Clearance Officer, OIRM, AG Box 7630, Jamie L. Whitten Building, Washington, D.C. 20250. When replying, refer to OMB No. 0581-0055 and form number in your letter. Under the PRA of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

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U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705

EXHIBIT C
(COTTON)

OBJECTIVE DESCRIPTION OF VARIETY
COTTON (*Gossypium* spp.)

NAME OF APPLICANT(S)	TEMPORARY DESIGNATION	VARIETY NAME
D&PL TECHNOLOGY HOLDING COMPANY, LLC.	03L045R, 03L401	DP 6222 RR Acala
ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code)		FOR OFFICIAL USE ONLY
P.O. Box 157 100 N. Main Street Scott, Mississippi 38772		PVPO NUMBER 200500179

Place the appropriate data that describes the varietal characteristic of this variety in the space provided. Characteristics described, including numerical measurements, should represent those that are typical for the variety. Royal Horticultural Society or any recognized color fan may be used to determine plant colors. Characters marked with an asterisk * indicate necessary characters to be measured.

SPECIFIC VARIETIES USED FOR COMPARISON AS CHECK VARIETIES IN THIS APPLICATION: Use standard regional check varieties which are adapted to your area. One of the comparison varieties must be the most similar variety used in Exhibit B.

Variety 1. Acala Sierra RR® Variety 2. _____ Variety 3. _____

*1. SPECIES:

X *G. hirsutum* L. _____ *G. barbadense* L.

*2. AREA(S) OF ADAPTATION: (A = Adapted, NA = Not Adapted, NT = Not Tested)

_____ Eastern _____ Delta _____ Central _____ Blacklands
_____ Plains _____ Western _____ Arizona _____ X San Joaquin
_____ Other (Specify): _____

3. GENERAL: Characteristics which are known to be variable but are still useful for a meaningful description of the variety.

	Application Variety	Comparison Variety 1	Comparison Variety 2	Comparison Variety 3
Plant Habit:				
Spreading, Intermediate, Compact	___ Intermediate ___	___ Intermediate ___	_____	_____
Foliage:				
Sparse, Intermediate, Dense	___ Intermediate ___	___ Intermediate ___	_____	_____
Stem Lodging:				
Lodging, Intermediate, Erect	___ Erect ___	___ Erect ___	_____	_____
Fruiting Branch:				
Clustered, Short, Normal	___ Short ___	___ Short ___	_____	_____

3. GENERAL: (continued)

200500179

Growth:

Determinate, Intermediate,
Indeterminate

Intermediate Intermediate

Leaf Color:

Greenish yellow, Light green,
Medium green, Dark green

Dark green Dark green

Boll Shape: Length less than width,

Length equal to width,

Length more than width

Length equal to width Length equal to width

Boll Breadth: Broadest at base,

Broadest at middle

Broadest at middle Broadest at middle

*4. MATURITY: (50 % Open bolls; Preferred method; Describe method if different method was used.)

Date of 50 % open bolls 171.5 120.5

5. PLANT:

Cm to 1st Fruiting Branch:

(from cotyledonary node)

15.3 15.5

No. of Nodes to 1st Fruiting Branch:

(excluding cotyledonary node)

5.8 6.7

Mature Plant Height cm:

(from cotyledonary node to terminal)

119.9 120

*6. LEAF: Upper most, fully expanded leaf.

Type: Normal, Sub Okra,

Okra, Super Okra

Normal Normal

Pubescence: Absent, Sparse,

Medium, Dense OR Trichomes/cm²

(Bottom surface excluding veins)

Medium Medium

Nectaries: Present or Absent

Present Present

*7. STEM PUBESCENCE:

Glabrous, Intermediate, Hairy

Intermediate Intermediate

*8. GLANDS: (Gossypol) Absent, Sparse, Normal, More Than Normal

Leaf:

Normal Normal

Stem:

Normal Normal

Calyx Lobe: (normal is absent)

Normal Normal

*9. FLOWER:

Petals: Cream, Yellow

Cream Cream

Pollen: Cream, Yellow

Cream Cream

Petal Spot: Present, Absent

Absent Absent

*10. SEED:

Seed Index: (g/100 seed, fuzzy basis) 13.3 12.1 200500179

Lint Index: (g lint/100 seeds) 9.0 8.6

*11. BOLL:

Lint Percent: ☒ Picked ☐ Pulled 40.3 41.7

OR

Gin Turnout: ☐ Picked ☐ Stripped

Number of Seeds per Boll 30.2 29.4

Grams Seed Cotton per Boll 6.3 5.8

Number of Locules per Boll

Boll Type: (Stormproof, Storm Resistant, Open) ☐ Open ☐ Open

12. FIBER PROPERTIES:

Specify Method (HVI or other): ☐ HVI

* Length: (inches, 2.5% SL) 1.185 1.162

* Uniformity: (%) 83.9 84.1

* Strength, T1 (g/tex) 36.5 34.3

* Elongation, EI (%) 11.4 11.5

* Micronaire: 4.4 4.3

Fineness (Source)

Yarn Tenacity: (cN/tex, 27 tex)

Yarn Strength: (lbs. 22's)

13. DISEASES: (NT = Not Tested, S = Susceptible, MS = Moderately Susceptible, MR = Moderately Resistant, R = Resistant)

☐ NT *Alternaria macrospora*

☐ NT Fusarium Wilt

☐ NT Anthracnose

☐ NT Phymatotrichum Root Rot

☐ NT Ascochyta Blight

☐ NT *Pythium* (specify species)

☐ NT Bacterial Blight (Race 1)

☐ NT *Rhizoctonia solani*

☐ NT Bacterial Blight (Race 2)

☐ NT Southwestern Cotton Rust

☐ NT Bacterial Blight (Race)

NT *Thielaviopsis basicola*

13. DISEASES : (continued)

2005 00179

NT Diplodia Boll Rot

MR Verticillium Wilt

Other (specify) _____

14. NEMATODES, INSECTS AND PESTS: (NT = Not Tested, S = Susceptible, MS = Moderately Susceptible, MR = Moderately Resistant, R = Resistant)

NT Root-Knot Nematode

NT Reniform Nematode

NT Boll Weevil

NT Grasshopper (specify species): _____

NT Bollworm

NT Lygus (specify species): _____

NT Cotton Aphid

NT Pink Bollworm

NT Cotton Fleahopper

NT Spider Mite (specify species): _____

NT Cotton Leafworm

NT Stink Bug (specify species): _____

NT Cutworm (specify species): _____

NT Thrips (specify species): _____

NT Fall Armyworm

NT Tobacco Bud Worm

Other (specify) _____

15. COMMENTS: Present any additional information that cannot adequately be described in 1 through 13 which significantly distinguishes your variety.

200500179

Table C1. Head to head fiber comparisons of DP 6222 BR with Acala Sierra RR®

					Lint Percent		Micronaire		Length		Uniformity Ratio	
Year	Experiment	Rep	City	State	DP 6222 RR Acala	Acala Sierra RR®	DP 6222 RR Acala	Acala Sierra RR®	DP 6222 RR Acala	Acala Sierra RR®	DP 6222 RR Acala	Acala Sierra RR®
2004	42CG0725	1	Casa Grande	AZ	0.392	0.409	4.7	4.4	1.19	1.18	83.0	83.8
2004	42CG0725	2	Casa Grande	AZ	0.400	0.416	4.6	4.7	1.15	1.13	84.0	82.6
2004	42CG0725	3	Casa Grande	AZ	0.393	0.417	4.7	4.6	1.16	1.14	83.0	83.5
2004	42V0728	1	Visalia	CA	0.407	0.430	4.1	4.3	1.21	1.17	83.8	85.0
2004	42V0728	2	Visalia	CA	0.407	0.413	3.8	3.9	1.19	1.17	84.1	84.7
2004	42V0728	3	Visalia	CA	0.392	0.411	4.2	4.3	1.24	1.18	85.7	84.2
2004	42V0728	4	Visalia	CA	0.399	0.424	4.0	4.3	1.25	1.16	83.2	84.9
2004	42V0728	5	Visalia	CA	0.416	0.409	4.1	3.8	1.22	1.18	84.2	84.1
2004	42V0728	6	Visalia	CA	0.404	0.409	4.3	3.8	1.24	1.18	86.0	84.9
2004	42YU0713	1	Yuma	AZ	0.415	0.426	4.6	4.5	1.13	1.15	84.3	84.1
2004	42YU0713	2	Yuma	AZ	0.412	0.416	4.4	4.4	1.12	1.17	83.2	83.1
2004	42YU0713	3	Yuma	AZ	0.404	0.427	4.7	4.5	1.13	1.15	82.7	84.8
Average					0.403	0.417	4.4	4.3	1.19	1.16	83.9	84.1
No. Tests					12		12		12		12	
Difference					-0.0136		0.09		0.023		-0.18	
F ratio - Analysis of Variance					22.185		1.726		4.424		0.294	
Probability of difference - F test					0.001		0.216		0.039		0.599	
Significant					S		NS		NS		NS	

Values in red are derived from the Analysis of Variance routine in the EXCEL - ANALYSIS TOOL PAK add-in

Table C1 continued. Head to head fiber comparisons of DP 6222 BR with Acala Sierra RR®

					Strength		Elongation		Maturity	
Year	Experiment	Rep	City	State	DP 6222 RR Acala	Acala Sierra RR®	DP 6222 RR Acala	Acala Sierra RR®	DP 6222 RR Acala	Acala Sierra RR®
2004	42CG0725	1	Casa Grande	AZ	36.9	36.9	10.2	11.0	88.0	86.5
2004	42CG0725	2	Casa Grande	AZ	34.5	35.5	11.0	10.8	87.0	87.5
2004	42CG0725	3	Casa Grande	AZ	34.0	35.1	10.8	12.2	88.0	88.5
2004	42V0728	1	Visalia	CA	40.2	32.4	11.3	13.9	88.0	89.0
2004	42V0728	2	Visalia	CA	39.8	41.5	11.1	10.3	88.0	88.0
2004	42V0728	3	Visalia	CA	43.8	37.8	10.3	11.0	87.0	87.5
2004	42V0728	4	Visalia	CA	38.5	30.1	12.4	13.2	87.0	87.0
2004	42V0728	5	Visalia	CA	35.9	38.8	11.1	11.2	86.0	86.5
2004	42V0728	6	Visalia	CA	44.6	31.9	9.8	11.5	86.0	86.0
2004	42YU0713	1	Yuma	AZ	32.5	30.1	11.7	10.9	88.0	88.5
2004	42YU0713	2	Yuma	AZ	30.6	31.7	10.7	10.5	87.0	87.0
2004	42YU0713	3	Yuma	AZ	28.9	30.4	16.0	12.2	87.0	87.0
Average					36.5	34.3	11.4	11.5	87.3	87.3
No. Tests					12		12		12	
Difference					2.19		-0.15		0.00	
F ratio - Analysis of Variance					2.075		0.111		0.000	
Probability of difference - F test					0.178		0.745		1.000	
Significant					NS		NS		NS	

Values in red are derived from the Analysis of Variance routine in the EXCEL - ANALYSIS TOOL PAK add-in

10

200500179

Table C2. Head to head plant comparisons of DP 6222 RR with Acala Sierra RR®

					Cm to 1st Fruiting Branch		No. of Nodes to 1st Fruiting Branch		Mature Plant Height cm		Maturity (Days 50% Open)	
Year	Experiment	Rep	City	State	DP 6222 RR Acala	Acala Sierra RR®	DP 6222 RR Acala	Acala Sierra RR®	DP 6222 RR Acala	Acala Sierra RR®	DP 6222 RR Acala	Acala Sierra RR®
2004	42CG0725	1	Casa Grande	AZ	18.0	18.0	5.6	5.6	143.6	111.8		
2004	42CG0725	2	Casa Grande	AZ	15.0	13.6	5.6	6.4	139.4	136.9		
2004	42CG0725	3	Casa Grande	AZ	12.8	14.6	6.0	7.2	121.9	135.6		
2004	42VI0728	1	Visalia	CA								
2004	42VI0728	2	Visalia	CA								
2004	42VI0728	3	Visalia	CA								
2004	42VI0728	4	Visalia	CA								
2004	42VI0728	5	Visalia	CA								
2004	42VI0728	6	Visalia	CA								
2004	42YU0713	1	Yuma	AZ								
2004	42YU0713	2	Yuma	AZ								
2004	42YU0713	3	Yuma	AZ								
2004	04GETMiller	1	Visalia	CA			6.1	7.5	100.6	116.3	171	169
2004	04GETMiller	2	Visalia	CA			5.7	6.7	94.0	101.9	172	168
Average					15.3	15.5	5.8	6.7	119.9	120.5	171.5	168.5
No. Tests					3		5		5		2	
Difference					-0.21		-0.88		-0.56		3.00	
F ratio - Analysis of Variance					0.062		13.260		0.004		9.000	
Probability of difference - F test					0.827		0.022		0.952		0.205	
Significant					NS		S		NS		NS	

Values in red are derived from the Analysis of Variance routine in the EXCEL - ANALYSIS TOOL PAK add-in

Table C2 continued. Head to head plant comparisons of DP 6222 RR with Acala Sierra RR®

					Seed Index		Lint Index		Number of Seed per Boll		Grams of Seed cotton per boll	
Year	Experiment	Rep	City	State	DP 6222 RR Acala	Acala Sierra RR®	DP 6222 RR Acala	Acala Sierra RR®	DP 6222 RR Acala	Acala Sierra RR®	DP 6222 RR Acala	Acala Sierra RR®
2004	42CG0725	1	Casa Grande	AZ	13.8	12.4	6.9	8.5	29.6	34.9	5.8	6.2
2004	42CG0725	2	Casa Grande	AZ	13.4	11.9	9.0	8.5	34.0	33.8	6.5	5.9
2004	42CG0725	3	Casa Grande	AZ	13.7	12.2	8.9	8.7	35.3	32.1	6.8	5.7
2004	42VI0728	1	Visalia	CA	13.3	10.9	9.1	8.4				
2004	42VI0728	2	Visalia	CA	12.8	11.3	8.8	8.0				
2004	42VI0728	3	Visalia	CA	13.5	12.9	6.7	6.9				
2004	42VI0728	4	Visalia	CA	12.9	11.3	8.6	8.3				
2004	42VI0728	5	Visalia	CA	13.0	11.7	9.3	8.0				
2004	42VI0728	6	Visalia	CA	13.5	11.9	9.2	8.2				
2004	42YU0713	1	Yuma	AZ	13.1	12.6	9.3	9.3	29.8	25.4	6.7	5.6
2004	42YU0713	2	Yuma	AZ	13.0	12.9	9.1	9.2	24.9	25.2	5.5	5.6
2004	42YU0713	3	Yuma	AZ	13.6	12.8	9.3	9.5	27.9	24.8	6.4	5.6
2004	04GETMiller	1	Visalia	CA								
2004	04GETMiller	2	Visalia	CA								
Average					13.3	12.1	9.0	8.6	30.2	29.4	6.3	5.8
No. Tests					12		12		6		6	
Difference					1.24		0.38		0.86		0.52	
F ratio - Analysis of Variance					45.826		7.149		0.369		3.809	
Probability of difference - F test					0.000		0.022		0.570		0.108	
Significant					S		S		NS		NS	

Values in red are derived from the Analysis of Variance routine in the EXCEL - ANALYSIS TOOL PAK add-in

REPRODUCE LOCALLY. Include form number and edition date on all reproductions.

FORM APPROVED - OMB No. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). The information is held confidential until the certificate is issued (7 U.S.C. 2426).

**EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP**

1. NAME OF APPLICANT(S) D&PL TECHNOLOGY HOLDING COMPANY, LLC.	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER 03L045R, DPX 03L401	3. VARIETY NAME DP 6222 RR Acala
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country) P.O. BOX 157 SCOTT, MISSISSIPPI 38772	5. TELEPHONE (include area code) 662.742.4141	6. FAX (include area code) 662.742.3182
7. PVPO NUMBER 200500179		

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. If no, please explain. ☒ YES ☐ NO

9. Is the applicant (individual or company) a U.S. national or a U.S. based company? If no, give name of country. ☒ YES ☐ NO

10. Is the applicant the original owner? ☒ YES ☐ NO If no, please answer one of the following:

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?
☐ YES ☐ NO If no, give name of country

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?
☐ YES ☐ NO If no, give name of country

11. Additional explanation on ownership (If needed, use the reverse for extra space):

DP 6222 RR Acala contains a proprietary gene, patented by the Monsanto Company and licensed to D&PL, which encodes a protein which provides tolerance to glyphosate herbicide in cotton cultivars.

PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

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ST-470-E (07-01) Designed by the Plant Variety Protection Office using Word 2000. Replaces ST-470-E (04-99), which is obsolete.

12